FATIMA JINNAH WOMEN UNIVERSITY
Department of Software Engineering

SOFTWARE CONSTRUCTION AND DEVELOPMENT LAB

LAB 6

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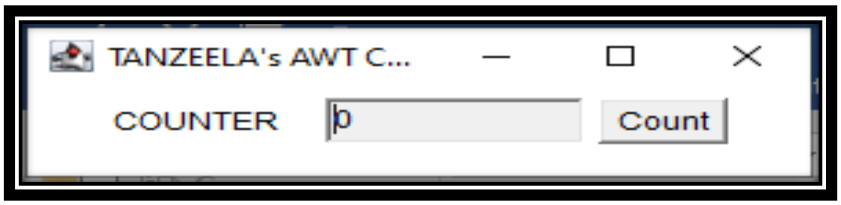
Example 1:

```
package awt;
import java.awt.*;
import java.awt.Event;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
public class AWTCounter extends Frame{
	private Label lblCount;
	private TextField tfCount;
	private Button btnCount;
	private int count = 0;
	public AWTCounter() {
		setLayout(new FlowLayout());
		lblCount=new Label("COUNTER");
		add(lblCount);

		tfCount = new TextField(count + "", 10);
		tfCount.setEditable(false);
		add(tfCount);

		btnCount = new Button("Count");
		add(btnCount);

		BtnCountListener listener = new BtnCountListener();
		btnCount.addActionListener(listener);
		setTitle("TANZEELA's AWT COUNTER");
		setSize(300,100);
		setVisible(true);


	}
	public static void main(String[] args)
	{
		AWTCounter app = new AWTCounter();
	}
  private class BtnCountListener implements ActionListener{
	public void actionPerformed(ActionEvent evt) {
		++count;
		tfCount.setText(count +"");
}
}
}
```

Output:

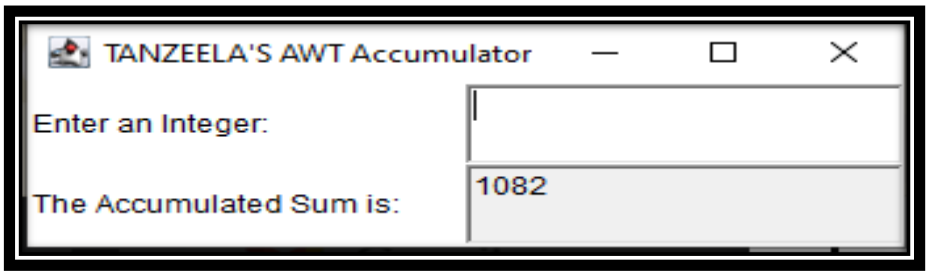


Example 2:

```
package awt;
```

```
import java.awt.*;
import java.awt.event.*;
public class AWTAccumulator extends Frame {

private TextField tfInput;
private TextField tfOutput;
private int sum = 0;

public AWTAccumulator() {
setLayout(new GridLayout(2, 2));
add(new Label("Enter an Integer: "));
tfInput= new TextField(10);
add(tfInput);

tfInput.addActionListener(new TFInputListener());

add(new Label("The Accumulated Sum is: "));
tfOutput = new TextField(10);
tfOutput.setEditable(false);
add(tfOutput);

setTitle("SABA'S AWT Accumulator");
setSize(350, 120);
setVisible(true);

}
public static void main(String[] args) {
AWTAccumulator app=new AWTAccumulator();
}

private class TFInputListener implements ActionListener {

public void actionPerformed(ActionEvent evt) { int
numberIn = Integer.parseInt(tfInput.getText()); sum
+= numberIn;
tfInput.setText("");
tfOutput.setText(sum + "");
}
}}
```

Output:

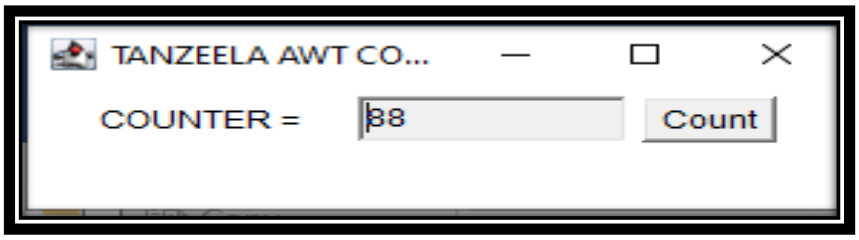


Task1 :

```
package awt;
import java.awt.*;
```

```
import java.awt.Event.*;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;

public class AWTCounterDown extends Frame{
        private Label lblCount;
        private TextField tfCount;
        private Button btnCount;
        private int count = 88;

        public AWTCounterDown() {
                setLayout(new FlowLayout());
                lblCount=new Label("COUNTER = ");
                add(lblCount);

                tfCount = new TextField(count + "", 10);
                tfCount.setEditable(false);
                add(tfCount);

                btnCount = new Button("Count");
                add(btnCount);

                BtnCountListener listener = new
                BtnCountListener();
                btnCount.addActionListener(listener);
                setTitle("SABA AWT COUNTER");
                setSize(300,100);
                setVisible(true);
        }
        public static void main(String[] args)
        {
                AWTCounterDown app = new AWTCounterDown();
        }
        private class BtnCountListener implements
 ActionListener{ public void actionPerformed(ActionEvent
                        evt) {
                --count;
                tfCount.setText(count +"");
}
}
}
```

Output:



Task 2:

```
package awt;
import java.awt.*;
import java.awt.event.*;
public class AWTFactorial extends Frame {

	private Label lb1;
	private TextField tfInput;
	private Label lb2;
	private TextField tfrac;
	private Button btnext;
	private int n;
AWTFactorial(){
	setLayout(new FlowLayout());
	setTitle("SabaTariq");
	lb1=new Label ("n");
	add(lb1);

	tfInput=new TextField(n+"",10);
	add(tfInput);

	lb2=new Label ("factorial : ");
	add(lb2);

	tfrac=new TextField(n+"",10);
	add(tfrac);

	btnext=new Button("Next");
	add(btnext);

	BtnCountListener listener = new BtnCountListener();
	btnext.addActionListener(listener);
	setSize(500, 100);
	setVisible(true);
}
public static void main(String[] args) {
AWTFactorial app=new AWTFactorial();
}

private class BtnCountListener implements ActionListener {
public void actionPerformed(ActionEvent evt) {
	int fac = 1;
int numberIn = Integer.parseInt(tfInput.getText());

for(int i=1;i<=numberIn;i++)
{
```

```
        fac=fac*i;
}
tfrac.setText(fac + "");
}
}
}
```

Output: